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DESCRIPTION

OF THE

ESTATE AND ABBEY

OF

CULROSS,

PARTICULARLY OF THE

MINERAL AND COAL PROPERTY,

WHEREIN IS GIVEN

AN ACCOUNT OF THE COAL WORKINGS AT CULROSS,

SINCE THE YEAR 1572.

TOGETHER WITH

A DESCRIPTION OF THE COAL MINING FIELD,

ON THE FRITH OF FORTH;

SHEWING

That the Frith Coal Owners cannot receive the ſmalleſt injury by a repeal of the Duty on Coals, whether on Engliſh or Scots Coals imported into or vended in Scotland, &c. &c.

PRINTED AT EDINBURGH,

1793.

TO HIS COUNTRYMEN,

THERE are few ſituations in which it may be thought proper for an individual to bring himſelf or his private concerns forward to the public eye. In the preſent caſe it has been done with reluctance; and if what follows can but excite enquiry, it cannot fail to do juſtice to one who in many inſtances has ſhown himſelf not indifferent to their concerns.

THE AUTHOR.

Haud facile emergunt quorum *laboribus* obſtat
Res angusta domi. JUVENAL.

DESCRIPTION

OF THE

ESTATE AND ABBEY

OF

CULROSS;

AS the Eſtate, Foreſt, Coal, and Mineral Property, will, in a few months be brought to ſale, this ſhort deſcription of it is given to thoſe who may wiſh to become Purchaſers.

THE Land Eſtate, let to tenants, extends, ſurface meaſurement, to about 900 Scots acres.

THE Foreſt, begun to be planted in the year 1751, extends to 800 Scots acres.

THE Coal Territory, held in property or in leaſe, extends to about 10,000 acres. It

contains 27 different Seams of Coal, from 2 to 9 feet in thickneſs; only 7 of theſe Seams have as yet been *partially* wrought.

THE beſt Seams being the ſame as thoſe of Borrowſtounneſs, are *entire*, never having been wrought, and may be won at any depth, from 30 to 100 fathoms. Theſe Coals are partly Smithy Coals, and partly Rich Caking Splents, and conſiſt of the following Seams:

FEET.	INCHES.	FEET.	INCHES.
2	0	4	4
5	9	6	6
2	0	2	3
2	0	2	•
9	0	4	0
4	0	3	•
2	0		

BESIDES theſe Rich Caking Coals, there are ſeveral Seams of Dry Splents and Rough Coals, well adapted for the manufacture of Pig and Bar Iron, being *entirely free from ſulphur*, of which the following is an account:

FEET.	INCHES.	FEET.	INCHES.
2	8	7	4
3	6	2	6
6	6	2	•
3	6		

THE

THE bands of Iron Stone are numerous, of different qualities, ſuiting partly for Forge and partly for Melting Iron. In one place, in particular, there are 14 ſtrata of Ball Iron Stone, from 5 to 1 inch in thickneſs, lying in 8 feet of ſoft Blaies or Blue Clunch. Offers have been made to lay the Iron Stone on Bank, all charges included, at 2 s. 6 d. per ton, if 21 Cwt. There are ſeveral ſituations within 60 yards of High-water Mark, well adapted for furnaces, where from 70 to 100 feet Riſe of Bank may be had. Beſides the richer veins of Iron Stone, there are two ſtrata of Calcarious Iron Stone lying contiguous, being for the moſt part 7 feet in thickneſs, and which, it is probable, will anſwer for a Flux inſtead of Lime Stone.

FREE Stone, *Fire Stone*, and Brick Clay, are to be had in abundance. There is likewiſe an inexhauſtible Vein of Indurated Fire Clay, 11 feet in thickneſs, *ſimilar to and equal in quality to that of Stourbridge*, and rendered level free to the height of 40 *perpendicular fathoms*, by a Mine from High-water Mark.

THERE

THERE are on the premiſſes two Fire Engines, the one of 40, the other of 50 inches cylinder.

CROP or Riſe Pits have been ſunk to aſcertain the quality and thickneſs of all the Seams of Coal, ſeveral of thoſe Seams are level free, and others may be rendered level free at a moderate expence.

THE Proprietor will furniſh the Purchaſer of his property, with all his plans, ſections, records, and journals, and with an *accurate ſection* of near 500 perpendicular fathoms of the ſtrata, containing coal to the weſt of the Queensferry, *aſcertained* by pits and bores, &c. &c. being the reſult of many years mineral reſearches.

THE Veins of Iron Stone, as well as a ſtratum of Feruginous Sulphurious Slate or Shyſt, 4 feet in thickneſs, and extending through ſome hundred acres of the eſtate, have been eſſayed by Dr Higgins of London. He found the Iron Stone to be of ſuperior quality and yield, and that the Slate

gave

gave 1-7th of its weight of Green Vitriol, with a proportion of Allum.

The magnificent and beautiful ſituation of Culroſs Abbey and Gardens is too well known to need any deſcription. In ſhort, ſo valuable and deſirable a purchaſe has not been offered for ſale for many years; and nothing but the Proprietor's pecuniary inability to proceed farther, could make him wiſh to part with a property, on which he had expended ſo much money to render productive, and ſtruggled ſo hard to retain.

To ſhew his opinion of the value of the property here deſcribed, and that it is capable, at a moderate expence, of being rendered highly productive, he offers to diſpoſe of it at the nett amount of his debts, being at leaſt L. 20,000 under its value, provided the purchaſer ſhall expend L. 4000 in completing the winning of the Rich Caking and Splent Coals, lately begun to, and in building a proper Quay and Harbour for ſhipping coal; the Seller reſerving power to repurchaſe the Property ſold, within ten years, on repayment of the original price, with 5 per cent.

cent. intereſt; the money expended on the Colliery and Harbour, together with a *bonus* or premium on the tranſaction of L. 20,000.

More full information may be had, by applying to the Earl of Dundonald, at Culroſs Abbey.

The property now advertiſed for ſale, is the only remains of very extenſive eſtates acquired by Sir George Bruce of Carnock, the preſent Proprietor's great-great grandfather by the female line, in conſequence of a judicious proſecution of the Coal and Salt-works, formerly belonging to the Abbots of Culroſs, which he firſt leaſed, and then purchaſed from Colville, Commendator of Culroſs, about the year 1575. Sir George was a younger ſon of the family of Bruce of Blairhall, and was brother to Edward Bruce, Lord Kinloſs, predeceſſor to the Ayleſbury family in England, and who was the only Scotſman of rank who accompanied James I. to England. The leaſe to Sir George is ſtill extant. In theſe days, it was uſual for the leſſee to aſſign reaſons for granting a leaſe, or ſigning any deed. The preamble

to

to the leaſe is here given, by way of ſhowing, that the working of Coals in the pariſh of Culroſs, muſt have been of a very early date; and likewiſe, how very beneficial the diſcovery of the Steam Engine has been to Collieries and Mines.

Preamble to the Leaſe, &c. &c.

" To our worthy friend and couſin " George Bruce, for the great regard we " bear to him, for the eſpecial care he had " of our affairs when we were abroad in " France, for his great knowledge and " ſkill in machinery, ſuch like as no " other man has in theſe days; and for " his being the likelieſt perſon to re- " eſtabliſh again the Colliery of Culroſs, " which has been long in diſuetude, in- " ſomuch, that we have neither large " nor ſmall Coal for our own houſe fire." Upon getting theſe leaſes, &c. Sir George Bruce erected machinery, conſiſting of the Egyptian wheel, commonly called chain and bucket, to drain the Coal to the dip of the old workings, which ſince appear

to have been only about 5 perpendicular fathoms below the level of high-water mark. Sir George by the aſſiſtance of this machinery, wrought *one* of the Seams of Coal, upon *one* of the reverſions of dip, to the depth of 40 perpendicular fathoms under and within high-water mark. Theſe workings were continued by Sir George Bruce until his death, and afterwards by his eldeſt ſon and heir George Bruce, until the year 1625, when the ſea, by overflowing the working-pits within high-water mark, drowned the works, as appears by an extract from Sir Robert Gordon's manuſcript Hiſtory of the Sutherlands, who, mentioning the death of King James I. which happened on the 27th of March 1625, ſays—" About the very day " of his death, there were ſuch ſtorms and " inundations in Scotland, that the ſea paſ- " ſing the accuſtomed limits, drowned a " number of perſons in divers ſea towns, " and deſtroyed moſt of the Salt-pans upon " the coaſt of Fife and Lothian, together " with the curious Coal-pit of Culroſs, " which had its entry within the ſea; ſo " that the harm was ſo great, that a foreign

" enemy

" enemy had not done ſo much in former " ages."

THIS accident put a ſtop for ſeveral years to the entenſive Coal and Salt Trade then carrying on at Culroſs, an account of which is given in a Book called, " *The Pennyleſs* " *Pilgrimage of John Taylor into Scotland*," in the following words, the ſtile of which ſavours much of the verboſity and prolixity of the then times;

" BUT I, taking my leave of Dunfermline, would needs go and ſee the truly noble Knight Sir George Bruce, at a town called the * *Cooras*; there he made me right welcome, both with variety of fare, and after all, he commanded three of his men to direct me to ſee his moſt admirable Coal Mines, (which, if man can or could work wonders,) is a wonder for myſelf. Neither in any travels which I have been in, nor any hiſtory that I have read, or any diſcourſe that I have heard, did never ſee, read, or hear, of any work of man that might parallel or be equivalent with this unfellowed

* Provincial mode of pronouncing the word *Culroſs*.

unfellowed and remarkable work; and though all I can ſay of it cannot deſcribe it according to the worthineſs of his vigilant induſtry that was both the occaſion, inventor, and maintainer of it, yet, rather than the memory of ſo rare an enterprize, and ſo accompliſhed a profit to the commonwealth ſhall be raked and ſmothered in the duſt of oblivion, I will give a little touch at the deſcription of it, although I, amongſt writers, am like he that worſt may hold the candle.

"THE Mine hath two ways into it, the one by ſea and the other by land; but a man may go into it by land, and return the ſame way, if he pleaſe, and ſo he may enter it by ſea, and by ſea he may come forth of it; but I, for variety's ſake, went in by ſea and came out by land. Now men may object, how can a man go into a Mine, the entrance of it being into the ſea, but that the ſea will follow him, and ſo drown the Mine? To which objection thus I anſwer, that at low water the ſea being ebbed away, and great part of the ſand bare, upon this ſame ſand (being mixed with rocks and crags) did the maſter of the great work build a round circular frame

frame of ſtone, very thick, ſtrong, and joined together with a glutinous or bituminous matter, ſo high withall, that the ſea, at the higheſt flood, or greateſt rage of ſtorm or tempeſts, can neither diſſolve the ſtones ſo well compacted in the building, or yet overflow the height of it. Within this round frame, at all adventures, he did ſet workmen to dig with mattocks, pick-axes, and other inſtruments fit for ſuch purpoſes. They did dig forty fathoms downright into and through a rock; at laſt, they found that which they expected, which was Sea Coal. They, following the vein of the Mine, did dig forward ſtill, ſo that in the ſpace of eight and twenty or nine and twenty years, they have digged more than an Engliſh mile under the ſea, that when men are at work below, an hundred of the greateſt ſhips in Britain may ſail over their heads; beſides, the Mine is moſt artificially cut like an arch or a vault, all that great length with many nooks and bye-ways, and it is ſo made, that a man may walk upright in the moſt places, both in and out.—Many poor people are there ſet on work, which otherwiſe, through want of employment, would periſh. But when I had ſeen

the

the Mine, and was come forth of it again, after my thanks given to Sir George Bruce, I told him, that if the plotters of the Powder Treaſon in England had ſeen this Mine, that they, perhaps, would have attempted to have left the Parliament Houſe and have undermined the Thames, and ſo have blown up the barges and wherries wherein the King and all the Eſtates of our kingdom were.—Moreover I ſaid, that I could afford to turn tapſter at London, ſo that I had but one quarter of a mile of his Mine to make me a cellar to keep beer and bottle ale in. The ſea, at certain places, doth leak or ſoak into the Mine, which, by the induſtry of Sir George Bruce, is all conveyed to one well, near the land, where he hath a device like a horſe-mill, that with three horſes, and a great chain of iron going downward many fathoms, with thirty-ſix buckets faſtened to the chain, of the which eighteen go down ſtill to be filled, and eighteen aſcend up to be emptied, which do empty themſelves, without any man's labour, into a trough that conveys the water into the ſea again; by which means he ſaves his Mine, which would otherwiſe be deſtroyed by the ſea; beſides, he doth make every

week

week ninety or a hundred tons of Salt, which doth ſerve moſt part of Scotland; ſome he ſends to England, and very much into Germany, all which ſhows how, that with painful induſtry, and God's bleſſing, he had accompliſhed ſuch worthy endeavours."

It appears by Taylor's account, that 90 tons of Salt were then made weekly at Culroſs, equal, annually, at 40 buſhels to the ton, to 180,000 buſhels, a quantity, at one work only, equal to about three-fourths of the whole quantity of Salt now manufactured at the different Salt Works on the Frith of Forth: At that time the vein of Roch Salt in Cheſhire had not been diſcovered, and which accounts for the great extent the manufacture of Salt was then carried to in Scotland, and the ſmall extent to which it is now carried, which is now only a limited monopoly * for home ſale, in favour of a few ſalt

* The Parliament had in the year 1663, in order to bring our trade to a balance with England, given the King in truſt a power to lay impoſitions on foreign commodities, ſo upon that (1673) a great duty was lately laid upon French Salt, in order to the better vending the Salt made at home; upon which it was ſold very dear, and that raiſed *great complaints*; for as the Salt was *exceſſive* dear, ſo it did not ſerve *all* purpoſes.—*Burnet's Hiſtory.*

ſalt manufacturers. By the proſecution of the Coal and Salt-works, Sir George Bruce acquired a very conſiderable fortune; he died poſſeſſed of ſeven different baronies near Culroſs; three other eſtates in Fife and Clackmananſhire; had three going Collieries, including the already diſcribed Colliery of Culroſs; 175 Pickmen, and 44 Salt-pans.

LARGE quantities of Coal were ſaid to have been ſent from Culroſs to London, in the years 21 and 22, while the Scots army lay at Newcaſtle, and interrupted the trade of the river, the Coals were ſent from the Colliery within high-water mark, deſcribed by John Taylor, and which forms but a *very ſmall part* of the *ſame* Seam of Coal ſtill to work in the pariſh of Culroſs, both *above* and below ſea level. Sir George Bruce, his ſons, and his grandſon's Coal-workings near Culroſs, were *confined to one ſeam*, and to *one field* of Coal, ſeparated by a *reverſion* of dep from the ſame Seam of Coal *ſtill to work* in moſt other places of the pariſh. At one place it has lately been found to be *level free* to a very conſiderable extent.

THIS

THIS Seam of Coal, which is from 7 to 9 feet in thickneſs, is the *only one*, except a Seam of 2 feet 6 inches in thickneſs, *known* by Sir George Bruce, &c. to be in the pariſh of Culroſs, *all the other* Seams of Coal, except three Seams ſince wrought to a *ſmall extent* in the contiguous lands of Valleyfield, have been diſcovered *by the preſent Proprietor* of Culroſs Abbey, of which an account has been given under the deſcription of the Coals ſimilar to thoſe of Borrowſtounneſs.—The Eſtates, Collieries, &c. acquired by Sir George Bruce, came afterwards to his grandſon, Edward Earl of Kincardine, and from him to his brother, Alexander Earl of Kincardine, great grandfather by the female line to the preſent Proprietor, who, having attached himſelf to the Steuart family in their baniſhment and diſtreſs, and attending, after the Reſtoration, to public affairs more than to his own private concerns, his fortune ſuffered from theſe cauſes, as well as from the large ſums of money he had advanced to Charles II. and the Duke of York, who repaid him with the ſame coin they paid all thoſe who had been their friends, or rendered them any ſervice. Of Alexander Earl of

Kincardine, Biſhop Burnet gives the following character:

" ANOTHER man of that ſide that made a " good figure at that time was Bruce, after- " wards Earl of Kincardine, who had mar- " ried a daughter of Mr Somelſdych in Hol- " land, and by that means he had got ac- " quainted with our princes beyond ſea, " and had ſupplied them liberally in their " neceſſities. He was both the wiſeſt " and the worthieſt man that belonged " to his country, and fit for governing " any affairs but his own, which he, by a " wrong turn, and by his love for the pu- " blic, neglected, to his ruin, for they con- " ſiſted much in *works*, *coals*, *ſalt*, *and mines*, " required much care, and he was very ca- " pable of it, having gone far in mathema- " tics, and being a great maſter of mecha- " nics.—His thoughts went ſlow, and his " words came much ſlower, but a deep judg- " ment appeared in every thing he ſaid or " did.—He had a noble zeal for juſtice, in " which even friendſhip could never bias " him.—He had ſold principles of religion " and virtue, which ſhewed themſelves with " great luſtre on all occaſions. He was a

" faithful

" faithful friend and merciful enemy. I
" may, perhaps, be inclined to carry his cha-
" racter too far, for he was the firſt man that
" entered into friendſhip with me—we con-
" tinued for ſeventeen years in ſo entire a
" friendſhip, that there was never either re-
" ſerve or miſtake between us all the while
" till his death; and it was from him that I
" underſtood the whole ſecret of affairs, for
" he was truſted with every thing. He had
" a wonderful love to the King, and would
" never believe me when I warned him
" what he might look for if he did not go
" along with an abject compliance in every
" thing. He found it true in concluſion,
" and the love he bore the King made his
" diſgrace ſink deeper in him than became
" ſuch a philoſopher, or ſo good a Chriſtian
" as he was."

OWING to the deranged ſtate of the Earl's affairs, all his property, except Culroſs Abbey, was ſold a few years after his death, and was purchaſed by his nephew, Colonel Erſkine, and from whoſe grandſon the preſent proprietor of Culroſs Abbey acquired back again the Coal property belonging to his great

great grandfather, partly by purchaſe, and partly by leaſe.

NEITHER the Colonel, nor any of his deſcendents, ever wrought any coals in the pariſh of Culroſs, and as the *laſt* Coal-workings of the Earl of Kincardine were about the year 1676, and the *firſt* Coal-workings of the preſent proprietor in the year 1774. The working of the Collieries, therefore, had been diſcontinued for ninety-eight years; a period when from the diſcovery of the Steam Engine, ſuch *rapid progreſs had been made in exhauſting the Coal at other Collieries.*

TO the property of the Minerals in the greateſt part of the pariſh of Culroſs, has been added leaſes of the Coals in the eſtates of Kincardine, Tulliallan, and Valleyfield, &c. It is in this laſt eſtate that the valuable ſeems of *Caking and Splent Coals* have been diſcovered, being the reſult of many years expenſive mineral reſearches.

THE ſeams of Coal in the eſtate of Valleyfield are the ſame as thoſe of Borrowſtounneſs, which always have been allowed to be

the

the beſt on the Frith, particularly the ſeam Coal called the Eaſt Main.

THESE rich Coals of Valleyfield, and which are the only Coals of *ſo ſuperior a quality*, now remaining to work on the Frith, may be wrought at and within high water mark, and with equal ſafety within high water mark as under the land, as the ſtrata within the ſea are covered by 50 perpendicular feet of very ſtrong tenacious blue clay, forming a certain and ſure preventative and barrier againſt ſurface water, ſhould any partial ſits or thruſts happen under the ſea workings; in ſhort, from the *number* and *quality* of the Coals, their being as yet *unwrought*, their *vicinity* to the ſea, the *facility* with which they may be won, and *extent* of ground both within high water mark, and under the land contiguous thereto, the Mineral property in the eſtate of Valleyfield, may be juſtly deemed the moſt valuable to its extent of any in the iſland.

THE *ſame* ſeams which have been found in the lands of Valleyfield, are and have been aſcertainted to be in the proprietor's own eſtate,

eſtate, but at a greater depth; and it is matter of conſideration whether theſe Coals ſhould be won in the lands of Culroſs at a greater depth, free from any rent or royalty, or at a leſs depth in the lands of Valleyfield, chargeable with the rent of 1-12th of the produce to Sir Charles Preſton. *The total want of Coals fit for ſmith's uſe in the Frith*; and the certain and regular demand for Coals of ſo ſuperior a quality, eſpecially as many of the old eſtabliſhed Collieries in the Frith are wearing faſt out, affords a greater proſpect of ſucceſs to this Colliery than perhaps to any one in Scotland, and where Coals have lately advanced full 25 *per cent.* in price.

It is not here intended to give any calculation of the gains to be expected from a judicious and *ſubſtantial winning* of Culroſs Collieries.

Four diſtinct and *ſeperate* winnings may be made on *different* ſeams of Coal, and the Colliery at *each* winning may be carried to *as great* an extent as any *one* Colliery on the Forth. There is *one* Colliery working only to

to the extent of 12,000 Newcaſtle chaldrons annually, which from Chriſtmas 1790 to Chriſtmas 1791, cleared of *nett profit* 3385 l. at the then inferior price of Coal.

FOREST.

THE Foreſt planted by the preſent proprietor's father extends to about 800 Scots acres, equal to 1000 Engliſh acres. It conſiſts moſtly of the Scots pine, commonly called the Scots fir.

FROM the time the Foreſt was begun to be planted, it was planted at the rate of from 25 to 30 acres annually, ſo that there is none of it under twelve years growth. The firſt planted, *viz.* in the year 1751, is now fit to cut for waggon-way rails, ſleepers, and pit-timber; and when ſawn out, there being an excellent ſituation for a ſaw-mill contiguous to the Foreſt, with a plentiful ſupply of water, will nett per acre, all expences paid, about 130 l. reckoning the wood at 4½d. per cubic foot. But as all the fir woods of a *proper age*, both on the Forth and Tay one now cut

cut, and foreign wood advanced and advancing in price, it may be reckoned at 6½ d. or 7 d. per foot.

THE demand for the uſes for which it is now applicable, may, from the Collieries on the Forth, &c. &c. amount to about 10 acres annually; but ten years hence it will be conſiderably greater, as the wood being then 52 years old, will be of a much larger ſcantling conſequently of greater value, and fit for purpoſes it is not now adapted for. Even, commencing at preſent the annual cutting of ten acres, which is only about one third of what had been annually planted, the remaining part of the foreſt next to cut will at the 10th year from preſent date, be forty-nine years of age, and may be cut in perpetuity at the rate of 15 acres annually, planting again as the wood is cut down; and valuing the wood thus cut at only 3s. per tree, there being on an average upwards of 1000 per acre, the acre of wood ſhould fetch 150 l. excluſive of the profit on ſawing and manufacturing it, which ſhould amount, excluſive of all expences, (when done by a ſaw-mill) to 50l. more. Upon the whole, the Foreſt

reſt may, for ten years from preſent date, be reckoned to nett to its proprietor 1300 l. *per annum*, and at the expiry of theſe ten years, at leaſt 2500 l. in perpetuity.

THERE can be no doubt of a ſale to the above extent, as, incluſive of the conſumption of the Collieries on the Forth, there is perhaps ten times that quantity of Wood uſed for waggon rails, &c. and pit timber at the Collieries on the Tyne and Weir.

Culroſs (Stourbridge) Fire Clay.

THIS Clay is warranted to be equal in quality to that of Stourbridge in Worceſterſhire. More need not be ſaid of it here.—It is leſs plaſtic; but this apparent imperfection *is to be* got over by a proper method of treating it.

THE extent of ground containing Coal in the proximity of the Frith of Forth, capable of being wrought to advantage, is much leſs than imagined by thoſe who talk of the banks of the Frith containing immenſe and uninterrupted fields of Coal, like what is

found on the banks of Clyde; while, on the other hand, it is much greater than the preſent wore out ſtate of many of the Collieries on the Forth would, at firſt ſight, lead us to imagine. The putting to rights the judgment of the public on a matter of ſuch importance to individuals and to the community, is of importance, eſpecially at a time when a ſcarcity of Coal had been ſo recently felt, and when ſteps are about to be taken by Government, to prevent the inhabitants of Scotland from experiencing a ſimilar ſcarcity in future.

Those who are acquainted with the lay of the Coal ſtrata through Britain, know, that, with few exceptions, they ſtretch through different parts of the Iſland in a N. E. and S. W. direction, not improperly named by Williams, the paraleliſm of the ſtrata.

The angle of depreſſion, or inclination of the ſtrata, is by no means uniformly at right angles to their paraleliſm; on the contrary, the angle of inclination is various in all Coal fields, and ſtill more irregular on the Frith than in any other part of the kingdom.

dom. At the ſame time, the prevailing or general dip or inclination of the ſtrata may moſt properly be ſaid to be N. W. as it is on the S. E. and ſouth ſide of the iſland (England being here meant) where the great body of calcarious matter ſhews itſelf, and which is known to be a terminer to, and to ly under all the Coal ſtrata.

THE flections of the ſtrata in ſo irregular and broken a country as Scotland, do not admit by occular demonſtration of a ſimilar theory as to the great body of calcarious matter, for the Coal ſtrata dip in all directions in their main line of bearing, and there never is a ſufficiently long continuance on one dip, to allow the under ſtrata (to riſe) if the term may be uſed to our inſpection, a term which is here qualified for reaſons which will appear when the arrangement, fractures, and different inclinations of the ſtrata come to be explained.

THE lay of the Coals to the ſouth of Edinburgh are too well known to need any very pointed deſcription here. They are fully deſcribed in Sinclair's Hydraſtics, and in Wil-

liams's Mineral Kingdom. They ſtretch in a S. W. direction inland from the ſea about ſeventeen miles, the breadth of the Field being, in ſome places, eight milles, at others leſs, particularly at the inland extremity of the Field.

This range of Coal occupies, if it may be ſo called, the great trough of country bounded to the ſouth by Soutra-hills, and to the north by Pentland-hills. Pentland-hills, it is true, do not continue all the way to the ſea, but in their ſtead is to be ſeen the ſtrata under the Coals, interſperſed with volcanic matter. The mode in which the volcanic matter had placed itſelf, either along the beds or in the perpendicular or inclined fractures of the ſtrata, ſhall either here, or in a future publication be accounted for; and where it will be ſhewn, that volcanic matter is not, in general, the cauſe either of the quick upthrow or the deranged ſtate of the ſtrata, on the contrary, is a conſequence of a previous fracture of the ſtrata.

The Field of Coal here deſcribed does not approach Edinburgh to the ſouth nearer than three

three miles and a half. There has been no Coal diſcovered between Edinburgh and Leith; and, on an eaſt and weſt line, *viz.* from the Marquis of Abercorn's Colliery to Grange and Borrowſtounneſs, a diſtance on the tract of the Frith of 24 miles, no Coals have as yet been diſcovered, except a foul and thin ſeam of Coal to the weſt of Leith. The ſame deficiency of Coal is experienced in the inland diſtrict, there being no Coals, except very broken, twiſted, and irregular ſeams found to the weſt of Edinburgh, nearer than Bathgate, or other Coals in that line of bearing.

THE north Bank of the Forth, oppoſite to the tract of thoſe here deſcribed, is equally deſtitute of Coal, at leaſt for ſome miles from the ſhore, *viz.* from Kinghorn to two miles weſt of Limekilns. This is a material *offtake* from the exaggerated accounts of the immenſe, continued, and inexhauſtable Fields of Coal on the Banks of the Forth.

To compenſate for this want of Coal on one part of the Frith, nature has been very bountiful to the weſt part—for from New-

miln

miln Bridge, which bounds Fife and Perthſhire, there is one uninterrupted Field of Coal to Alloa; and the whole of the country inland contains Coal as far as Devon Water, which runs parallel to, and at the foot of the Ochil-hills. This Field of Coal is in length about ten miles, and, on an average, ſeven miles in breadth, and meaſures about 44,800 Engliſh acres.

THERE is on the ſouth ſide of the Forth, a ſtill greater field of Coal, bounded by Grange and Borrowſtounneſs on the eaſt, and Bannockburn to the weſt, ſtretching in the line of bearing, *viz.* N. E. and S. W. through Weſt Lothian, part of Stirlingſhire, Lanarkſhire, part of Renfrewſhire, and Ayrſhire.

FROM the diſtrict and main lay of the Coal to the *north* of the Forth already deſcribed, a leader of Coal ſteals off as it were, and takes its courſe at ſome miles from the ſhore, by Torry, Inzefar, Annfield, Carnock, Pitfirran, Pittencrief, Baldridge, Dumfermline, Halbeath, Fordell, Cuttlehill, Lochgelly, &c. &c. Theſe coals are the undermoſt ſtrata in the coal field, laying contiguous.

Below

Below them, at the diſtance of about 100 perpendicular fathoms, lies the main poſt of lime now working at Broomhall. There is a deal of volcanic matter or whin in this part of Fife, producing very remarkable effects on the ſeams of coal, according to their proximity to it, the ſame ſeams in ſome places being Smithy Coals; in others Splint, or Clear Coals; and, in other places Blind, (as it is here called), or Welch Coals.

In general, the Coals is this tract are of a ſuperior quality to the ſeams in Mid-Lothian. It is a field well worth being explored by a volcanic Mineraliſt. The ſtrata are in ſome places very much cut and intermixed with whin-ſtone, (of the volcanic origin, of which the writer of this has not the moſt diſtant doubt.) The Coal in this tract generally dips to the north, *viz.* to the bank or riſe of the ground, which is rather an unfortunate circumſtance to the proſecution of theſe Collieries to any conſiderable depth, ſeveral of which have already been wrought to a conſiderable extent. Fortunately for the Proprietors, they have found their Coals after working to a certain depth, thrown up to

the

the north, by an up-caſt, as it is commonly called, but whether thy may meet in future with ſuch fortunate up-caſts, time only can determine. The Coals in this coal field are attended with a land carriage of from four to five miles. Mr Wemyſs of Cuttlehill has by much the greateſt extent of Coal property yet to work of any one on the the already deſcribed range; but he has no right to a way-leave or waggon-road to the ſhore, without which, at the preſent, or rather late prices Coals were ſold at, his Colliery could not be carried on to any extent, or material advantage to himſelf.

THIS finiſhes the deſcription of the Coals in the weſt of Fife.

THE author is leſs acquainted with the Coals in the eaſt of Fife, which, by their bearing, ſeem to be the ſame as thoſe to the ſouth of Edinburgh, ſtretching, from Lord Abercorn's Colliery, in a north-eaſt direction, acroſs the Frith, and entering at Dyſart and the Wemyſs, at which laſt place there is one of the moſt extenſive and valuable coal properties on the Firth, hitherto carried

ried on to an extent much inferior to what it is capable of being carried to, but which the preſent proprietor is engaged in preparing for a more extended ſale. There are ſeveral collieries to the eaſt of Col. Wemyſs's, but none of them, except the colliery belonging to Sir John Anſtruther, have of late been wrought to any extent.

THE Field of Coal already deſcribed, viz. from Newmiln Bridge and Culroſs, to Alloa is by much the moſt extenſive and valuable of any on the Forth, and more favourably ſituated in general, both for working and ſhipping, than the coals on the ſouth ſide of the Forth, where ſo great a quantity is ſecured, and now working, for the conſumption of the extenſive iron works at Carron.

THERE are iron works likewiſe erecting on Lord Cathcart's eſtate, near Alloa, where there are both ſplent and clear coals of excellent quality. Theſe iron works will naturally *deprive* the Public of a ſupply from thence, as well as from the contiguous colliery of Tillycoultry, of which the company who are erecting the iron works have taken

a leaſe. Two other collieries on the Frith are now ſilent, and there are three or four more of old eſtabliſhed collieries on their laſt legs, and can laſt but a few years, and whoſe names it would be improper to mention. Facts in time will ſpeak for themſelves.

On the whole, the collieries on the Frith never were in ſo *unoperative* a ſtate as at preſent; for the old collieries are wearing rapidly out, and none are coming ſufficiently faſt forward to take up their place.

To the preceding notice of the ſale of Culroſs Abbey, and deſcription of the Collieries, &c. the proprietor thinks it neceſſary to add that the unfortunate connection which ſubſiſted about ten years ago, with Mr William Chapman, and the late Mr Liddell of Newcaſtle, and of a later date with *others* ſtill *more unfortunate* in their iſſue, to him; neither of them as to pecuniary matters being in a condition to fulfil the engagements they had come under to him, either as to the Tar-patents, or the winning and proſecution of the Collieries, has

has had the effect, by blending and confounding the pecuniary ſituation and conduct of others with his own, for which laſt he is only accountable, to occaſion a more than uſual degree of prejudice to go forth againſt him.

To this a jealouſy on the part of many of the Coal-owners or leſſees of Collieries on the Forth of the propietors *ſuperior extent* of Coal, and Mineral property, has not a little contributed, together with the falſe reports propagated, and ſo induſtriouſly circulated by Scotch Managers or viewers of Collieries perſons in general no leſs deficient in Mineral knowledge, and in experience in Colliery matters than in *ſobriety* and *integrity*. The proprietor is, therefore, from theſe circumſtances under the neceſſity of ſaying more in behalf of himſelf and his affairs than he otherways would have done He hereby challenges any Coal-owner, leſſee, or manager of a Colliery on the Forth, to invalidate one iota of the facts ſet forth in the preceding advertiſement, and which in a great meaſure have already been corroborated by the teſtimony of gentlemen and coal-

maſters

maſters of character and knowledge, who were ſo good as viſit and inſpect the Collieries and ſeems of Coal in April laſt, and who gave ample teſtimony of their extent, quality, and value, both in a report drawn up and ſigned by them, as well as at a meeting of the proprietor's creditors.

The Coal owners, or their managers, who have ſo induſtriouſly circulated reports to the prejudice of his affairs, or more properly ſpeaking of his Coal and Mineral property, are leſs entitled to belief, or to criticiſe on the conduct and affairs of others, as they have by an illiberal jealouſy of one another, want of proper underſtanding and agrement among themſelves, as to matters in which all were intereſted, particularly as to *regulations concerning colliers*, added to an injudicious method of working and conducting their Collieries, allowed the Coal trade in the Frith *to decline* to ſuch a degree, that a bill is now propoſed, among other regulations and indulgences to be granted to Scotland, to allow the importation of Engliſh coals, even into the Friths of Forth and Tay, with a view to remedy the *preſent* or any *future* ſcarcity of Coal.

Coal. However much this may be oppoſed by other coal-owners on the Forth, it meets with the concurrence and the good wiſhes of the writer of this, who, poſſeſſed of more than *three times* the extent and value of *any* ~~three~~ *one coal-owner* on the Forth, and *twenty*, nay *thirty times greater* than certain individual coal-owners who now take the lead in the trade, does not think that his intereſt, or their intereſt will ſuffer thereby, for reaſons which he is ready to ſtate, if neceſſary. At any rate he is of opinion, that the narrow and limited ideas of many of the coal-owners on the Forth, where the colliery buſineſs is ſcarce entitled to the name of trade, ſhould not be allowed to cramp or defeat the benevolent intentions of Government to the people of Scotland, particularly to thoſe of the lower claſs, in allowing the importation of Coals, duty free, in Scotland, *whether Scotch or Engliſh* nor ſhould the exemption of the Friths of Forth and Tay from the duty on Coals, be conſtrued into a *monoply* in favour of the Scotch Coal-owner, and to the extent they claim it, not only to Coals but likewiſe to Salt, they having hitherto oppoſed, and being now ready to oppoſe any bill which

ſhall

ſhall allow the importation of Rock ſalt into Scotland, leſt their countrymen, particularly the poor, ſhould, excluſive of duty, be ſupplied with ſalt at 7 d. or 8 d. a buſhel, inſtead of 1 s. 10 d. or 2 s. the price now paid for ſalt of a much *inferior quality* to what is manufactured in England from rock ſalt, and ſold at 8 d. The author of this has long urged the expediency, nay juſtice, of allowing the importation of rock ſalt into Scotand, being an indulgence granted to the *Iriſh*, and at preſent *denied* to the inhabitants of *this country*. In ſhort, he is an enemy to *all monopolies*, even to the monoply of Coal-tar. He has long been willing to diſpoſe of the patent to Government, or to the coal and iron maſters in Britain, on being reimburſed the money he can ſhow by books and vouchers to have been expended. He ſhall reckon himſelf ſingularly obliged to any Member of the Houſe of Commons who will move for an enquiry in the preſent ſtate and extent of the manufacture of Coal-tar in Britain, and *the reaſons why* the ſhip-builders, or rather *repairers* of ſhips, will not make uſe of it, *after the fulleſt evidence of its reſiſting the attack of the ſea worm*. This enquiry will

ſtill

ſtill be more proper at a time when, from our being engaged in a war, naval ſtores from abroad will both become ſcarcer, and will riſe in price. On the whole, Lord Dundonald hopes and truſts, that Government will not allow an individual, or thoſe connected with him, to ſuffer *materially in their private fortunes* by their *unaided* and *unſupported exertions* to manufacture and bring into uſe an article of *ſuch importance* to a *maritime State.* He likewiſe thinks it neceſſary to ſay, that the *only* productive, properly placed and conſtructed Tar-works, are thoſe in Shropſhire and Staffordſhire, planned and ſuperintended in their erection *by himſelf.*—Theſe things ſhould be known by the Public, as the indiſcriminate cenſure or remarks of intereſted, malevolent, or miſinformed perſons, have had the effect materially to injure the credit of the patentee, even in matters totally unconnected with the Tar-undertaking.—His ſituation has been peculiarly hard —born to the ſmall remains of the fortune of a maternal great grand-father, having of the Dundonald Family eſtate nothing but the Caſtle, he has endeavoured to increaſe his fortune, by honeſt induſtry, and by undertakings

takings in which the Public were no leſs intereſted than himſelf, carried on with a perſeverance of which few examples can be given. His having been a *Scots Peer* has likewiſe been extremely unfortunate and hurtful to the undertakings he is concerned in; for *traders* ſay, we will have nothing to do with you becauſe you are a *Peer*; and *Peers ſay*, we will have nothing to do with you becauſe you are a *trader*. Theſe are the only arguments on equalizing principles that are entitled to make a convert of him to the *new doctrine*, or which could tend to ſhake thoſe ſentiments expreſſed by him in the Culroſs parochial reſolutions, for which he has been abuſed, and threatened by a letter under the feigned ſignature of Millbank, called Court ſycophant and expectant. This letter, together with a copy of the reſolutions which called forth the abuſive epiſtle of Mr Millbank, are ſubjoined to this publication. On the author's receipt of the letter above mentioned, he gave it, with ſome moſt inflammatory and ſeditious publications contained in it, to the Lord Advocate of Scotland, and aſſured his Lordſhip, that ſo far from being a Court ſycophant or expectant, he never would, while

blood

blood ran in his veins, accept of place or penſion from Government, from whom he never had received the ſmalleſt favour, aid, or aſſiſtance; on the contrary, much unmerited neglect *: That he had at an early period ſupported the independence of his order, being the only claſs of men who had been ſufferers by the otherwiſe happy and fortunate union of the two kingdoms. He ſtept forth with others to reſcue them from oppreſſion and dependence, it being too much the way of the world to *keep thoſe down who are down.* But as ſoon as he ſaw the lengths to which certain republican, or, more properly ſpeaking, diſappointed Peers were about to carry matters, he thought it his duty † *immediately* to ſeparate from them, preferring by much the annihilation of their order to a reform *a ta time* when there was no

* That ſuch perſonal conſiderations never had, and never ſhould influence his conduct, or make him, like others, attempt to excite anarchy and rebellion out of pique to Miniſters, a ſort of revenge only ſuiting madmen: That, if diſappointed in his exertions to bring to a bearing the undertaking he was then engaged in, his intentions were to diſpoſe of his property, and to retire with the debris of his fortune.

† In July laſt, on ſeeing in the papers the reſolutions of thoſe who had excluſively aſſumed to themſelves the appellations of *Friends to the People.*

knowing *where* it might ſtop, probably not *until* a revolution was brought about *ſimilar* to that of mad and devoted France, againſt which, and in defence of his Majeſty's perſon and Government, and the Conſtitution of Britain, he had two ſons, grandſons of the gallant Captain Gilchriſt of the Southampton, ready to turn out in the ſea line; and if, from any deſperate or unuſual exertions on the part of our Gallican neighbours, exertions ſhould be reqired of perſons holding at preſent no rank in the navy or army.— The author of this ſhall in that caſe certainly offer his ſervices to his country, ſmall as they may be, in the naval line; a profeſſion to which he once had the honour to belong. His domeſtic concerns and not his inclination forced him to drop his purſuits in a profeſſion to which he then was, and ſtill is ſo much attached. If the conduct he propoſes to hold does no more, it will at leaſt ſhew his zeal for the *good cauſe*, and his deſire not to ſkulk while the *baſe*, *treacherous*, and *perfidious regicide Gaul* is attempting to ſet this country and Europe *in flames* by the diſſemination of his moſt damnable and damning doctrines.

FORTH

FORTH COAL TRADE, &c.

THE author of this may, by ſome, be thought to have a peculiar way of thinking, having in this publication expreſſed himſelf an advocate for, or at leaſt not afraid of any injury to ariſe to him as a Coal-owner by the importation of Engliſh Coals into the Friths of Forth and Tay. Theſe ſentiments are ſo diſſimilar to thoſe of his brethren in the Coal Trade that they require an explanation.

Four-fifths of all the Coals imported to the *north* of the duty-free diſtrict of Forth and Tay, are *Newcaſtle* or *Sunderland* Coals. They are a leſs chearful and leſs elegant, but a more laſting and œconomical fuel than Scots *non-caking* Coal. The conſumer, whether of Engliſh or Scots Coals pays at preſent

Prime Coſt,
Duty, and
Freight.

IT is obvious, that when any article is chargeable with what may be called *three prices*, the conſumer will find it his advan-

tage to purchaſe the *beſt*, or rather moſt thrifty article, although it ſhould be *higher* in price.

But, if the article ſhould fall one-third or one-fourth in price, there is not the ſame inducement to be ſo rigidly œconomical; and the more pleaſant burning coal, here called No. 2. may have the preference given it to the more œconomical No. 1. The truth of this all the Scots Coal-owners with whom the author has converſed *have admitted*; and that, in conſequence of taking off the duty on coal, they will have *a greater ſhare* of the *Scots North Country* coal trade than they have at preſent.

This point being admitted, let us conſider how far they have reaſon to be apprehenſive of any injury to their collieries, by the importation of Engliſh coals into the friths of Forth and Tay. This will beſt appear by a calculation of the charges, on a ſuppoſition of the firſt, of the ſecond, third, or even of the moſt inferior, Newcaſtle or Sunderland coals being *imported* into the Friths of Forth

or

or Tay, compared with the firſt, ſecond, and third ſorts of the Forth coals.

Comparative Statement of the Price of Engliſh and Scots Coals, ſold in the Frith of Forth, per Chaldron of 54 Cwt.

	s.	d.	s.	d.
The High Main, or beſt Newcaſtle,	18	0		
Keel Dues, Town-houſe Dues, Duke of Richmond's Dues, &c. -	4	0		
Freight to the Forth, 5 s. per ton,	13	6		
			35	6
Second ditto, -	16	0		
Keel Dues, &c. &c. -	4	0		
Freight, -	13	6		
			33	6
Third ditto, -	15	0		
Keel Dues, &c. &c. -	4	0		
Freight, -	13	6		
			32	6
Slack, or the moſt inferior *Small* Coal, for Glaſs Works, &c. &c. -	12	0		
Keel Dues, -	4	0		
Freight, - -	13	6		
			29	6

Forth Coals.

Beſt Great Coal *preſent advanced* prices, viz. St Davids, -	17	6		
Average Freight, 2 s. 6 d. per ton, per chalder, -	6	9		
			24	3

Second

Second Great Coal, preſent *advanced* prices, -	15	9		
Freight, -	6	9		
			22	6
Beſt Round or Metable Coal, preſent *advanced* prices, viz. St Davids,	15	6		
Freight, -	6	9		
			22	3
Second Round or Metable Coal, *advanced* prices,	13	6		
Freight, -	6	9		
			20	3
Slack or Small Coal,				
Beſt ditto for lime-burning *advanced* price,	9	5½		
Freight,	6	9		
			16	2½

THESE calculations will ſhow whether the coal owners on the Forth have any reaſon to dread any injury to their intereſt, by any probable importation of Engliſh Coals into the Frith of Forth. The ſame table will apply to the Frith of Tay, with the addition of 1 s. 6 d. per ton of extra freight from the Forth, 4 s. per chaldron.

N. B. There is no extra freight charged on Newcaſtle coals to the Tay.

Comparative

Comparative Table of the Price of Engliſh and Scots Coals in the Friths of Forth and Tay.

	NEWCASTLE. *In the Forth.*		FORTH. *In the Forth.*		NEWCASTLE. *In the Tay.*		FORTH. *In the Tay.*	
	s.	d.	s.	d.	s.	d.	s.	d.
Beſt,	35	6	24	3	35	6	28	3
Second,	33	6	22	6	33	6	26	6
Third,	32	6	22	3	32	6	26	3
Slack,	29	6	16	2½	29	6	18	2½

It has been likewiſe thought proper to give a Table of the Prices of Engliſh and Forth Coals at Aberdeen, where the freights from the Forth and from Newcaſtle and Sunderland may be ſuppoſed to be much about a par.

	NEWCASTLE. *At Aberdeen.*		FORTH. *At Aberdeen.*	
	s.	d.	s.	d.
Beſt,	35	6	31	0
Second,	33	6	29	3
Third,	32	6	29	0
Slack,	29	6	22	11½

The obſervation to be made on the laſt ſtatement is, that if taking off the duty at the north country ports to the northward of the

the Redhead, the boundary of the duty-free diſtrict, ſhall have the effect to put the Forth coal owner on more *equal* terms with the Newcaſtle coal owner for the ſupply of *thoſe* markets. And where the Forth coal-owner has not at preſent above *one-fifth* of the trade, he cannot ſurely have reaſon to dread the importation into a diſtrict where the diſproportion of prices is ſo much *more in his favour*. But they, it ſeems, with much leſs reaſon than the braſs founders of Athens, hollo out, that the craft is in danger.—" Great is " Diana of the Epheſians!"

HAVING ſtated the prices at which coals are now ſold at the collieries on the Forth, the author here will ſtate what he thinks ſhould be the fair and *holding* prices of the *beſt* coals on the Forth, being the prices at which he intends to ſell his beſt Caking Coals and Smithy Coal Splints, if he is ſo fortunate as to be able to complete the winning of his collieries and retain his property. Theſe he will compare with the Newcaſtle prices delivered in the Frith.

Newcastle.	s.	d.	Culross.	s.	d.		
Beſt,	35	6	Beſt,	16	2½		
			Freight,	6	9		
						22	11½
Second,	33	6	Second,	15	0		
			Freight,	6	9		
						21	9
Third,	32	6	Third,	13	6		
			Freight,	6	9		
						20	3
Slack,	29	6	Slack,	9	5½		
			Freight,	6	9		
						16	2½

Newcaſtle and Culroſs Coals, Forth of Tay.

Beſt,	35	6	-	26	11½
Second,	33	6	-	25	9
Third,	32	6	-	24	3
Slack,	29	6	-	20	2½

Newcaſtle and Culroſs Coals delivered at Aberdeen, &c.

Beſt,	35	6	-	29	8½
Second,	33	6	-	28	6
Third,	32	6	-	27	0
Slack,	29	6	-	22	11½

By the above ſtatements, the Culroſs Coals are ſtated to be ſold at prices which ſhould *handſomely reward* the Coal Owner for his expenditure and attention. Thoſe who raiſe

the prices higher, do not ſee that, by ſo doing, they not only give a premium for new Collieries in the Forth to ſtart up, but likewiſe encourage the importation of Coals from England, a meaſure which they now ſo much affect to dread, and are ſo determined to oppoſe.

THE Author deteſts ſo much what in England is often, with too much truth called, by Members of the Houſe of Commons, a Scots job, that he is determined to oppoſe his brother Coal-owners in their oppoſition to a meaſure ſo liberal on the part of Government, and ſo beneficial to the inhabitants of Scotland in *general*, for to reſtrict the inhabitants, or rather manufacturers of the Forth from Engliſh Coals, is to prevent certain branches of manufacture from the uſe of Coals, which are either abſolutely neceſſary, or beſt adapted for them, ſuch as for ſmiths, founders, and to a *certain degree* for the manufacture of glaſs. Theſe Coals muſt therefore be imported, as there are at preſent *no Coals* working on the Frith of an *equal* or *ſimilar* quality. The

Coals

Coals with which the ſmiths are now ſupplied, being abſolutely rubbiſh. Now it will ſound rather ſtrange to the Members of the Houſes of Parliament, either that the Friths of Forth and Tay are to be debarred from importing theſe Coals, or that the quantum allowed to be imported duty free, ſhall be regulated by a *jury of Forth Coal-owners.*

THE Author has *already* ſtated, that he is not of opinion, that the moſt diſtant injury is to be apprehended from the unlimited importation of Engliſh Coal into Scotland, duty free; beſides, there is a liberality of conduct to be obſerved in all matters between the two happily united inhabitants of the ſame iſland, and now forming but *one* nation, to which ſmall matters ſhould give way. Farther, he does aver, that were even a conſiderable quantity of Engliſh Coals to be imported into the Forth and Tay, even for *houſekeepers* uſe, it would not ultimately injure the Coal trade of the Forth.

THE gradual uſe of metable or ſmall coals would tend to *diminiſh* the *partiality* Scots people have at preſent to *Great Coal*, for

which they pay 25 *per cent. higher price*, in order to have the *pleaſure themſelves*, their ſervants, or the *coal porters in the ſtreets*, of *breaking down*, often to one-eighth part of the ſize. The Collier is *encouraged* to work them at an *advance* of 30 *per cent.* on the *charges* of working from the *extra time* and *care* neceſſary on his part. This is one of the reaſons why Engliſh Colliers do not like to work at the Scots Collieries. A Newcaſtle Collier while he works, works hard; is ſtripped to the ſkin; does not *take ſnuff*, *conſider*, and *cool upon his work*, but *puſhes out quantity* on which a maſter's profit *depends*. The ſame *difficulty* that occurs in Scotland in getting out quantity, occurs *in ſhipping* any large quantity of great Coal, which is all put by hand into veſſels, with as much care as if it was *crockery ware* built up in *different walls* or copartments, and ſuch is the *delay* attending it, that it is cheaper and eaſier to load a veſſel of 140 *tons* with metable coals, than a veſſel of 60 *tons* with great coal. Now ſuppoſing veſſels to come with Engliſh Coals to the Forth or to Tay Water, they will prefer taking a freight or cargo back to returning in ballaſt. They will therefore, as no other article

article can be given them, load with St David's pleaſant and elegant burning Coal, or other beſt Coals, for the London or Lynn market, making thus an exchange of Engliſh Coal for Scots Coal, the quality of which laſt deſerves to be more known by a *luxurious* and *rich* people like the Engliſh. 1*ſt*, Becauſe it does not deſtroy houſehold furniture with *ſoot* and *ſmoke* like Newcaſtle Coals. 2*dly*, Becauſe it is freer *from ſulphur*, and better adapted for *bed-chamber* fires. 3*dly*, Becauſe there is a *ſuperior degree* of elegance and comfort in burning it in a drawing-room; and, *laſtly*, Becauſe it either is, or ſhould be *toneiſh*, Scots Coals and Wax Tapers forming two of the indiſpenably neceſſary attendants of *Drums*, *Routs*, and *Squeezes*,

As we are ſhort of veſſels of a *proper burthen* in the Forth for the London and Engliſh coaſting Coal Trade, Engliſh veſſels coming with Engliſh Coals will remedy that defect, unleſs it is prevented by the charges, *contrary to the articles of the Union*, of *double* Iſle of May Light-houſe dues, on *all Engliſh veſſels* that go to the *northward*, or come *in ſight even to the ſouthward* of the Light of May,

May, equal to 1½ d. *per* ton *more* than is paid by Scots veſſels, and which on a Newcaſtle veſſel of 30 Keels of Coals, or 630 tons burthen, amounts of *extra* charges to 3l. 18s. 4d. This tax of the Iſle of May moſt *extravagant* Light-houſe dues, whether for Engliſh or Scots veſſels, ſhould be regulated by Government, or the grant bought up before the farther increaſe of trade *increaſes* the *hurthen* on the Public.—The nett profit of the Light-houſe, is ſaid to form an addition to Miſs Scott's *fortune, d'une Princeſs*, of 700 l. a-year, after paying *all charges* *.

The Author ſhall now proceed to aſtoniſh the advocates for a Scotch monopoly of Coal in the Frith, by ſaying, that the importation of a very large quantity of Engliſh Coal into the Friths of Forth and Tay, at leaſt for a time, will be of *material ſervice* to the Scotch Coal Trade, by uniting the Scotch Coal-owners againſt what will then be deemed a *common enemy*. In conſequence of which, the firſt ſtep will be *regulations*

* The Author is informed, that the *Profits* on the Light of May have *quadrupled* within theſe twelve years.

lations concerning *their colliers*, *bounties* to *increaſe* their numbers, and ſo *diminiſh* their at preſent moſt *extravagant* wages.

A ſtop put to the *barbarous*, and *ultimately expenſive method* of converting the Colliers wives and daughters into *beaſts of burthen*, and cauſing them to carry Coals to the pit bottom or to bank *on their backs*.—The adoption of Water or Steam Engines to wind up the Coals from the pits.—An alteration of the method of working Coal, *viz.* board ways faſhion as at Newcaſtle, or the long way as in Shropſhire, *inſtead of* poſt and ſtaal.

A different aſſortment of the Coals for ſale, by making *no diſtinction* between round and great Coal.

A more *expeditious* way of ſhipping the Coal, from an elevated Coal Steath and Spout, inſtead of by *Hand-barrows* carried by two men, as is practiſed *at preſent* at *moſt* Forth Collieries. An abolition of the dirty and *mean practice* of many of the Scots Owners of Collieries acting as *Sutlers*, and ſupplying their workmen, frequently at an advanced

advanced price, with Oatmeal, Salt Herrings, Salt Beef, Cheeſe, Butter, Candles, Soap, and ſuch articles; receiving beſides a bonus or gratuity from the Overſman of the Colliery, or ſome other perſon, as a ſhare of the profits on retailing *Small* Beer and *Whiſkey*, the *favourite* beverage of the lower claſſes of the people in Scotland, ſince the time that Miniſters were gracious enough to allow us to *poiſon ourſelves* with *cheap* Spirits in Scotland, provided we did not touch the London or Engliſh market. *Laſtly*, the Colliery buſineſs will be better underſtood. Viewers or Managers will ſerve an apprenticeſhip, and be regularly bred to the buſineſs like at Newcaſtle, inſtead of its being thought a ſufficient recommendation for that moſt important office, to have been *a Carpenter*, *Blackſmith*, Gentleman's *Gardener*, *or a Clerk* to a counting-houſe.

Theſe alterations will of neceſſity happen, by our being a *little puſhed* by our ſouthern neighbours. In ſhort, we never ſhall get right till we get as far wrong as we can. Arguments have thus been held out *of all ſorts*, with which perſons may ſuit their different palates, although neither of them will, perhaps,

perhaps, ſuit the taſte of the Scots Coal-owners, whoſe fears are magnified by the miſt through which they look at objects, with the borrowed glaſſes of their Managers.

THE ſtatement of the prices at which Coals, at the ſea ſide Collieries on the Forth (where there is not a very diſtant land carriage) can be ſold with ſufficient profit to the Coal-owner, has not been given with a view to caſt any reflection on thoſe Coal-owners who have of late raiſed the price of Coals at their Collieries. The advance has been more moderate than might have been expected, conſidering the very great demand and the extra charges they have been put to in procuring Colliers, and in puſhing out an encreaſed out put of Coal, at a time of ſuch general ſcarcity: At the ſame time, it muſt be admitted, that 17s. 6d. per chaldron of 54 cwt. equal to 6s. 6d. per ton, is rather high for ſuch a conſtant and regular trade; as, with ample profit to the Forth Coal-owner, will enſure the excluſion of Newcaſtle and Sunderland Coals from the Friths of Forth and Tay.

THERE are a variety of cauſes which have concurred to occaſion the late ſcarcity of Coals in Scotland, and which ſhall be treated of ſeparately. *1ſt*, It is to be aſcribed to the price of Coal at moſt Collieries having, for *many* years, been *under par*, and *leſs* than the Coal-owner was entitled to, in return for his property diſpoſed of—money expended and riſk and attention to a troubleſome and multifarious detail.

A SCARCITY of an article capable of being procured, will never take place while an adequate price is given for that article at market. The low price of Coal here ſtated, has been general through Scotland, excepting at Sir Archibald Hope's land ſale collieries, near Edinburgh, whoſe local ſituation and ſuperior quality of his Coals has for many years given him almoſt a monopoly of the Edinburgh market. A monopoly which he has uſed with much too great moderation, and much to the injury of other Coal-owners, by ſelling his Coals *at leſs* than they ſhould have ſold for on account of their *ſuperior quality*, and the *ſaving* in cartage from his pits. This, no doubt, proceeded from

from a deſire to engroſs the whole of the ſales. But this has proved, and muſt always prove, *ultra vires* of any one individual, from the irregularity of the ſales, as well as from the temporary interruptions by new winnings or otherwiſe, which all Collieries are liable to. Sir Archibald had better have contented himſelf with a more limited vend at a *greater price*, and allowed other Coal-owners to have had *a ſhare* of the trade, on terms which would have ~~entitled~~ enabled them to have prevented the late ſcarcity. By this means *all parties* would have been benefited, and the more diſtant Collieries would have been in *a condition* to have ſupplied the late, and at times unavoidable deficiency of Sir Archibald Hope's or other Collieries near Edinburgh.

THE *too low* price of Coals at Sir Archibald Hope's colliery, together with the *encreaſe* on Collier's wages, has made Coal owners, whoſe Collieries are more diſtant (and who might ſupply Edinburgh with any quantity of Coal) leſs deſirous to *ranſack* their eſtates, diſpoſe of their property, and carry on works, from which they did not

get adequate returns, eſpecially at a time when the Colliers throughout Scotland were in ſo *lawleſs* and mutinous a ſtate. From what has been ſtated, nothing can appear more abſurd than the reſolutions of certain Societies in Edinburgh, during the late ſcarcity, not to purchaſe Coals from the Collieries near Edinburgh, *becauſe the price was too high.* The very *reverſe* of which has been *demonſtrated* to have been the caſe.

So much for ſuperficial and unfounded *popular* opinion.

EXCLUSIVE of the reaſons given for the late ſcarcity of coal, there is a deficiency of colliers throughout Scotland, to work the coals neceſſary for the uſe of the inhabitants. A combination of cauſes has produced this, while the late rapid erection of iron-works, where vaſt quantities of coal are conſumed, is the proximate cauſe. The following iron-works, excluſive of thoſe of Carron and Cleugh, have been erected within theſe three years,

Muirkirk,

Muirkirk,
Cleland,
Carmile,

ANOTHER iron-work is now erecting on Lord Cathcart's eſtate, near Alloa, which, excluſive of its requiring more colliers and miners than formerly, will deprive the Public of a ſupply of coals from that colliery.

THE following ſtatement is neceſſary to enable the Public to judge of the injury, in one point of light, done to the Coal-owners, by the erection of iron-works.

THERE are two blaſt furnaces at Muirkirk, 2 at Cleland, 3 at Carmile or Clyde Iron-work, in all 7; of which there are 5 at preſent in blaſt. Each blaſt furnace, blown by a ſteam engine, conſumes, including engine coals, workmens coals, and coals for calcining the mine or iron-ſtone, at leaſt 9000 tons of coal annually. *Inde*, 5 blaſt furnaces will conſume 45,000 tons. And as on an average, each collier in Scotland does not turn out above 8 tons of coal weekly, it will require 112 colliers to work the above quantity

quantity of coal, excluſive of other colliers and miners, employed to ſink pits, drive mines, and work the iron-ſtone and lime-ſtone for the furnace. For theſe purpoſes it cannot take leſs than 150 additional hands; ſo that 5 blaſt furnaces will require 262 colliers and miners, formerly employed in preparing collieries for work or in working coals for the domeſtic conſumption of the inhabitants of Scotland. This evil is only *beginning* to be felt. It being certain, from the preſent *high price* and great demand for caſt iron, as well as from the *peculiar advantages* attending *many* ſituations in Scotland, that twenty additional blaſt furnaces will be erected in Scotland within the ſpace of ten years from preſent date, requiring a ſupply of 2048 colliers and miners. This ſupply of hands muſt either be drawn from the collieries now working coal for the conſumption of the inhabitants of Scotland, in which caſe coals will increaſe in price above any calculation now poſſible to be made. Or Erectors of iron-works muſt be compelled to breed hands for their works, by being prohibited by act of Parliament, by a bill to be brought in for the ſpecial purpoſe, from employing

ploying any colliers now employed at the collieries. The very *great profits* they now make on the manufacture of iron, *excluſive* of an extenſive conſumption and handſome profit on their coal and minerals, enables them at preſent to give, or rather to promiſe, ſuch wages to colliers, &c. &c. as coal-owners cannot afford to give. Of all the iron-maſters in Scotland, not one has done ſo material injury to the Coal-trade and Coal-owners as the proprietor of Cleland Works. There are few collieries which have eſcaped the moſt indefatigable exertions of himſelf, or thoſe employed by him, to induce their colliers to leave the collieries they were then working at. The Coal-owners would much rather have contributed their quota or proportion of men neceſſary for thoſe Works, than have been under the neceſſity, as they have been, of advancing their wages, to prevent their deſertion. The extent to which Cleland Works are carried would have occaſioned but a limited evil, had it not ſo happened, that, from various cauſes, few of the colliers procured in this manner from other collieries choſe to continue there, ſo that upon their

their departure a freſh aſſeſſment or contribution was to be levied on the Collieries. —The author having undertaken to give the public a genuine ſtatement of the cauſes of the decline and hardſhips under which the Coal-trade in Scotland now labours, he could not, conſiſtently with truth, juſtice, or his views in this publication, conceal facts which have operated ſo much againſt the intereſt of the Coal-owners, and the public in general, and againſt the repetition of which there is a neceſſity for an *immediate* remedy, by a bill being brought into Parliament to prevent iron-maſters in Scotland from employing at their iron-works colliers now employed in working coals for the conſumption of the inhabitants.

It ſurely muſt be admitted to be reaſonable that the iron-maſter ſhould recruit for themſelves, and not oblige the Coal-owners, and ultimately the inhabitants at large in this country, to breed up, or pay a bounty for perſons *to be* afterwards employed at their iron-works. The difficulty of getting day labourers or others to work Coals, is much greater than perſons unacquainted with theſe matters

ters would imagine. The cauſes operating againſt their following a profeſſion where from three to four times the wages they now earn, are to be had, are ſo well ſtated in a late publication, addreſſed to the Lord Provoſt of Edinburgh, that the author cannot do better than give an extract on that head, added by way of an appendix to this publication.

He cannot deny that the picture there given of them is too true in many inſtances, while in others there is not a ſimilar trait or feature to be found. The conduct of colliers, as well as of other men, depends on the treatment they receive, and the plan purſued in the management of them, particularly by their maſter, to whom they will look up for aid, protection, and example. It is but juſtice to the colliers formerly employed at Culroſs Colliery to ſay, that they in general preſented a very different picture: they were ſteady, ſober, men of principle, well clothed, neat in their perſons, and well ſupplied with houſehold furniture. This favourable alteration in their conduct

and manners is to be aſcribed to ſeveral cauſes.

Firſt, To a deal of mining, boring, and ſinking pits, which went on at the firſt ſtarting of the colliery, in which colliers not miners, were principally employed: By this means their wives were exempted from the drudgery of bearing Coals in the pits; and by ſtaying at home, contracted a habit of *domeſtic attention and care of their families*, while the huſbands learning to be miners, *adopted their manners*, and who in general are a very orderly ſober ſet of men.

Secondly, Few or no ſtranger colliers were employed in the works, the colliers belonging to the colliery being then ſufficient to raiſe the quantity of Coal required for the ſale.

Thirdly, The colliers were not payed their *full* wages weekly, or once a fortnight, as is the practice at other collieries. They were payed each fortnight as much as enabled them to ſupport their families. The balance or arrears was payed once in three or four months;

months; this mode of paying them made them œconomical, and the arrears enabled them to provide themſelves with good *clothes, houſehold furniture, &c.* and to lay in a ſupply of beef for their families in November. Indeed they carried the taſte for the *elegantiorum* of life farther than may be thought neceſſary; moſt of them had ſilver watches, clocks in all their houſes; ſeveral of them on a Sunday wore ſilk ſtockings, tambour embroidered ſilk veſts, with their hair well dreſs'd and powdered.

FEW of theſe men are now at Culroſs, from the interruption given for ſeveral years to the Colliery. They have been obliged to ſeek for work at other Collieries, where *the Owners have had the addreſs to let them bargains, or to get them to enter into long engagements*, ſo that the Author of this, experiences at preſent *all the difficulties* of other Coal-owners, and is obliged to take ſuch hands as he can get.

FROM what has been ſtated in this Publication, and in the extract from the Pamphlet alluded to, and given as an Appendix, the

the following will appear to be the principal cauſes of the preſent ſcarcity, and irregular, mutinous and diſorderly conduct of Scots Colliers:

1*ſt*, THE practice of bearing Coals on *Women's backs.*

2*dly*, THE *High Wages*, High Bounties, and *encouragement* given Colliers to run in debt.

3*dly*, THE practice of Coal-owners and others *enticing away* and engaging one another's Colliers.

4*thly*, THE *rapid increaſe* of Blaſt Furnaces.

5*thly*, WEEKLY pays *without ſtoppages.*

6*thly*, THE *cheapneſs* of Malt Spirits.

7*thly*, AND to Colliers being put like ſwine into *miſerable mean* hovels or houſes.

UNDER theſe circumſtances is it ſurpriſing, that the manners and conduct of Colliers

liers ſhould be different from that of other workmen. Men will reſpect themſelves, *according as they are treated* by others. It depends on the officers to properly diſcipline the men under their command. But according to the preſent ſyſtem of the Scots Coal Trade that is impoſſible, from the *conſtant emigration* of Colliers from one Colliery to another, and the *oppoſite* plans and ſyſtems purſued at the different works.

THERE is another moſt injudicious and mean practice at many Scots Collieries, of the *Coal-owners*, (or thoſe who pay him an annual *bonus* for leave to do ſo), keeping a Sutlery, and paying the Colliers to account of their wages in Oatmeal, Salt Beef, Salt Herrings, Butter, Cheeſe, Soap, Candles, &c. and together with two articles although laſt *not leaſt*, ſmall Scots Twopenny Ale and *Whiſky*. In ſuch traſh a Scots Collier's wages are frequently ſpent before the pay-day. The more articles he takes up, the *more the Sutlery gains*, and which militates againſt that *ſyſtem of æconomy* which produced *ſuch an alteration* on the Colliers at Culroſs Colliery.

IT

It is abſolutely neceſſary, according to all principles of freedom and *feeling*, that a Collier ſhould ſee and *feel* in his hand, the *money* he had earned, and be at liberty either to hoard it up, or ſpend it in what way he pleaſes. The picture of our *worthy Monarch, whom may God long preſerve*, may captivate his fancy, and which if he parts with, he will probably barter for better things than *ſmall Beer* and *bad Spirits*. Do not let the Reader ſmile at this! Thoſe who know mankind know, that their conduct is generally influenced by circumſtances apparently trivial; nay, the Author of this does acknowledge himſelf ſo much in love with his Majeſty's picture, that he will at any time rather part with a Scots guinea note than a guinea. Every thing ſtated in this publication tends to prove, that the *erroneous ſyſtem* of the Coal Trade in Scotland, and the irregular and diſorderly conduct of the Colliers, is *owing to the Coal-owners or Leſſees of Collieries*, with the further aid of a *ſet of men* who prey upon *both* Coal-owners and Colliers, viz. the *Overſmen*, who to a conſiderable ſhare of gallantry with the Colliers *wives* and daughters, add the farther qualification

fication of being notorious drunkards, and the damn'deſt ſcoundrels, in general, under Heaven. They are in *no dread* of being turned out either for *roguery*, *neglect*, or *drunkenneſs* from any one ſervice, becauſe they are *always ſure* of finding employment in the *neighbouring*, and generally *rival* Colliery, eſpecially if they *promiſe* at the ſame tim to *debauch away* their quondam maſter's Colliers.

ENOUGH has been ſaid to give a proper idea of the ſituation and *component parts* of the Scots Coal Trade; and to uſe the Gallic expreſſion *practically* attempted of late by *villains*, to be introduced into this country, the Scots Coal Trade may now be ſaid to be in a moſt complete ſtate of *diſorganization*; and from which the author, (although a Scots Coal-owner,) does not heſitate to ſay, nothing can relieve us ſhort of the immediate, *unlimited*, and duty-free importation of Engliſh Coals into Scotland.

IT will have the effect to remedy the *preſent*, and next winter's probably *ſtill greater* ſcarcity and high price of Coal.

THIS

THIS is not ſtated from conjecture, but from a thorough knowledge of the *preſent ſituation* of the Forth and Lothian Collieries and *Colliers*. It will *force* the Scots Coal-owners to adopt a *proper ſyſtem*, and to *reform* the preſent abuſes of every kind. It will ſhew to the Scots *working* Collier, that he *no longer* has a *monopoly* of the trade, and that the inhabitants of the country can procure fuel *without his aſſiſtance*, conſequently that he may work or ſtarve as he pleaſes.

IT is aſtoniſhing that the inhabitants of Scotland ſhould be ſitting with their arms acroſs while the Forth Scots Coal-owners have petitioned againſt a Bill ſo *materially conducive in toto to the proſperity of Scotland*, and which does the *higheſt* honour to the *Mover* of it. But mankind are ſtrange beaſts, are ſelfiſh to an extreme as to what immediately concerns *themſelves*, and have an inſurmountable indifference, indolence, apathy, and want of heart, as to what concerns others, or a country in general. This is an age of ſentiment, novels, and overſtrained refinement. (*France*, *indeed*, is not here meant,) where abundance are to be met with courting the appellation of philanthropiſts,

piſts, or ſailing with the tide of *popular*, and, at times, miſguided phrenzy or opinion, making a buſtle about Slave Trade, *Freedom*, and emancipation of Negroes, while they will turn their eyes from ſcenes of domeſtic and national miſery and diſtreſs, or *decline* attempting to alleviate the burdens of their fellow-ſubjects.

THE author cannot help blending in his mind the words *freedom—equality—emancipation—convention—reform—organization*— (the modern cant word *deſpot*)—*king-killing—anarchy*—and *chaotic confuſion*, or return, as it is called, to *firſt principles*, ſo eaſily to be brought about by *individuals*, firſt of all diveſting themſelves of *all principle*; and that there was more under the buſtle about the freedom of negroes than met the eye. It was a feeling of the pulſe—a *Weſt-India reform*, *without* the conſent of the Proprietors, by way of *leading* the way to a reform, *&c. &c. &c. &c. at home*—not ſo innocent an experiment as the *experiment* of the reform of the Court of Seſſion propoſed ſome years ago, and ſo humorouſly treated in an excellent

little pamphlet by the celebrated James Boſwell. *Others* now ſee the tendency of the propoſed *primary* reform; and there are *Perſons* in the Houſe of Commons who would be extremely happy to uſe the expreſſion of the Houſe to *diſpoſe* of Mr Wilberforce and his motions, eſpecially at the *preſent time.*— Mr Wilberforce is ſaid to be a man of benevolence, but he ſurely does not foreſee the conſequence of *ill-timed* alterations; and who has in this matter been backed by *perſons of a very different deſcription from himſelf*, actuated by very *different* views.

THE reader will pardon this apparent digreſſion, not really a digreſſion, as there is a great *ſimilarity* between negroes and colliers, *in colour*, *in manners*; and the likeneſs would be ſtill greater were they *emancipated*, when Quiba might ſing like Caliban in the Tempeſt,

Ban, Ban Cacaliban,
Quiba is *maſter*,
Maſter is *man*.

Conſequences which were *very near* lately happening in *this* country.

LET

LET us, therefore, *ſtill be on our guard*— the enemy have only *retired* to their holes, where, like moles, they are carrying on their *concealed mines*, ready to be ſprung on any *future occaſion*.

FINIS.

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